



PATENT ABSTRACTS OF JAPAN

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ISHIZAWA YOSHIKAZU****(54) PRODUCTION OF HIGH STRENGTH STEEL
TUBE EXCELLENT IN SULFIDE STRESS
CORROSION CRACKING RESISTANCE****(57) Abstract:**

PURPOSE: To obtain the steel tube by directly working a continuously cast billet into a seamless steel tube, combinedly applying direct hardening to the steel tube, and specifying the composition of the steel tube.

CONSTITUTION: A billet having a composition which consists of, by weight, 0.15-0.4% C, 0.1-1% Si, 0.3-1% Mn, 0.1-1.5% Cr, 0.1-1% Mo, $\leq 0.015\%$ P, $\leq 0.005\%$ S, 0.0005-0.003% B, 0.01-0.1% Al, 0.01-0.03% Ti, 0.003-0.01% N, and the balance Fe and where, when a PGS value represented by equation $PGS = (0.3Ti + 0.05Al)/N$ is determined, the contents of Al, Ti, and N are regulated so that PGS becomes 1.0 to 1.5 is prepared. This billet is worked at a temp. not lower than the Ac_3 transformation point into a seamless steel tube, which is subjected, without delay, to water quenching and to

tempering at a temp. not higher than the Ac_1 transformation point. Moreover, Nb and/or V can further be incorporated by 0.01-0.05% into the above composition. By this method, the seamless steel tube for oil well and gas well use, excellent in SSCC resistance and having strength as high as $\geq 75\text{kg/mm}^2$ yield point strength can be obtained.

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